

**IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

KARAMELION LLC,)	
)	Case No. 1:20-cv-0639
Plaintiff,)	
)	Honorable Sharon Johnson Coleman
v.)	
)	
INTERMATIC INCORPORATED,)	
)	
Defendant.)	

MEMORANDUM OPINION AND ORDER

Plaintiff Karamelion LLC (“Karamelion”) filed an amended complaint on February 18, 2020, alleging infringement of its United States Patents No. 6,275,166 (“the ‘166 Patent”) and No. 6,873,245 (“the ‘245 Patent”) against defendant Intermatic Incorporated (“Intermatic”). Intermatic has moved to dismiss pursuant to Federal Rule of Civil Procedure 12(b)(6) on the grounds that the ‘166 and ‘245 patents are directed to ineligible subject matter under 35 U.S.C. § 101. For the reasons set forth below, this Court grants Intermatic’s motion.

Background

Patents-in-Suit

The ‘166 Patent, entitled “RF REMOTE APPLIANCE CONTROL/MONITORING SYSTEM,” was filed on January 19, 1999. (R. 11, First Am. Compl., Ex. A, ‘166 Patent.) The Abstract of this patent discloses “[a] system for managing a distributed array of appliances [which] includes a headend computer having a low power main transceiver and a distributed array of relay units.” (*Id.*) The Abstract further describes the composition and function of the relay units (“relays”). (*Id.*) Each relay has a “microcomputer” which controls the relay’s “low power satellite transceiver.” (*Id.*) The relay transceiver communicates with the headend computer and retransmits communications intended for other relays in the system. (*Id.*) At least some of the relays also have

an “appliance interface” which allows the relay’s microcomputer to control an appliance. (*Id.*) Each relay has a unique address by which the headend computer directs its communications to a particular relay in the system. (*Id.*)

At issue is independent claim 16 of the ‘166 Patent:

A method for controlling a distributed array of appliances from a headend computer, comprising the steps of:

- (a) providing a headend computer having a main radio transceiver;
- (b) providing a distributed array of relay units, each relay unit having a satellite radio transceiver and a unique serial number, at least some of the relay units being electrically interfaced to a corresponding portion of the appliances;
- (c) signaling by the main transmitter from the headend computer the addresses of at least three relay units, one of the addresses being a destination address, the other addresses including first and second relay addresses, and a control signal for an appliance being interfaced to a destination relay unit having a serial number corresponding to the destination address;
- (d) decoding the first relay address at a first relay unit having a corresponding serial number;
- (e) transmitting the control signal, the second relay address, and the destination address from the first relay unit;
- (f) decoding the destination address at the destination relay unit; and
- (g) feeding the control signal to the appliance from the destination relay unit.

(*Id.* col. 11, ll. 19-30, col. 12, ll. 01-16) Dependent claim 17 adds elements concerning the transmission of an acknowledgement signal from the destination relay via other relays to the headend computer. (*Id.* col. 12, ll. 17-27.)

The ‘245 Patent, entitled “RF REMOTE APPLIANCE CONTROL/MONITORING NETWORK,” was filed August 14, 2001 as a continuation-in-part of the ‘166 Patent. (First Am. Compl., Ex. B, ‘245 Patent, col. 1.) The Abstract of this patent describes “[a] system for managing a

distributed array of appliances [which] includes a distributed array of the units, at least some of the relay units being appliance controllers having an appliance interface.” (*Id.*) The Abstract further discloses that communications are relayed between two or more relays using “automatically generated routing tables that are maintained in the relay units.” (*Id.*)

Independent claim 1 of the ‘245 Patent is also at issue:

An appliance controller for a distributed appliance system having a multiplicity of appliances, and a plurality of relay units, one of the relay units being the appliance controller and comprising:

(a) a low power satellite radio transceiver having a range being less than a distance to at least some of the appliances;

(b) an appliance interface for communicating with the at least one local appliance;

(c) a microcomputer connected between the satellite radio transceiver and the appliance interface and having first program instructions for controlling the satellite transceiver and second program instructions for directing communication between the satellite transceiver and the appliance interface;

(d) the first program instructions including detecting communications directed by another of the relay units relative to the same appliance controller, signaling receipt of the directed communications, and directing communications to the other of the relay units relative to the same appliance controller; and

(e) the second program instructions including detecting relay communications directed between the another of the relay units and a different relay unit, transmitting the relay communications, detecting a reply communication from the different relay unit, and transmitting the reply communication to the other of the relay units,

wherein at least some of the relay units communicate with others of the relay units by relay communications using at least two others of the relay units.

(*Id.* col. 14, ll. 64-67; col. 15, ll. 01-27) The claims dependent on claim 1 add elements concerning the unique addressing of the relays and the effective range and frequencies of the relays. (*Id.* col. 15, ll. 28-48.)

Karamelion's Allegations

Karamelion initiated this lawsuit in January 2020 and filed its first amended complaint in February 2020. In Count I, Karamelion alleges that Intermatic directly infringes claim 16 of its '166 Patent and, in Count II, at least claim 1 of its '245 Patent. (*Id.* ¶¶ 18, 30.) More specifically, in Count I, Karamelion alleges that Intermatic's accused products, "InterMatic MultiWave System Controller and Z-Wave¹ Dimmers, temperature sensor receivers and other Z-wave supported devices," perform "actions comprising using an appliance controller for a distributed appliance system having a headend computer to satisfy the method steps of claim 16" of the '166 Patent. (*Id.* ¶ 18.) Karamelion claims that the MultiWave System Controller ("MWSC") acts as a headend computer with a main radio transceiver by which it communicates with other Z-Wave devices. (*Id.* ¶ 19.) These Z-Wave devices, each having "a satellite radio transceiver ... and a unique serial number," in turn act as "repeaters" by relaying messages from the MWSC to other Z-Wave devices. (*Id.* ¶ 20.) As a repeater, each relay decodes (*i.e.* removes) its own address from the message it receives from the headend computer or another relay and then transmits the remainder of the message to the next relay specified in the message. (*Id.* ¶¶ 22, 25.)

Based on its internal testing, Karamelion claims that Intermatic's accused products performed the following steps:

- (1) The MWSC transmits a message containing a control signal and addresses of at least two intermediary relays ("R1" and "R2") and the destination relay ("D") to the first relay R1.
- (2) Upon the message reaching relay R1, R1 decodes its address and transmits the remainder of the message to R2.
- (3) Upon the message reaching relay R2, R2 (decodes its address and) transmits the remainder of the message to D.

¹ "Z-Wave" is a wireless communications protocol which enables Z-Wave-compliant devices to control or share information with other such devices. *About Z-Wave Technology*, Z-WAVE ALLIANCE (Sept. 14, 2020), https://z-wavealliance.org/about_z-wave_technology/.

- (4) Upon the message reaching relay D, D feeds the control signal to its corresponding appliance via its interface with that appliance.
- (5) Finally, relay D transmits an acknowledgement signal in a similar manner along the same path in reverse: from D to R2, from R2 to R1, and then from R1 to the MWSC.

(*Id.* ¶¶ 21-25.)

In Count II, Karamelion alleges that Intermatic is “making, using, selling, and/or offering for sale an appliance controller for a distributed appliance systems [sic] having a multiplicity of appliances, and a plurality of relay units, that satisfies the limitations of at least claim 1” of the ‘245 Patent. (*Id.* ¶ 30.) Karamelion claims that Intermatic’s accused products have “a lower power satellite radio transceiver having a range being less than a distance to at least some of the appliances,” an appliance interface for communicating with at least one local appliance, and a microcomputer connected between the transceiver and appliance interface. (*Id.* ¶¶ 32-34.) The microcomputer has “first program instructions” which enable the relay to transmit and detect messages concerning its appliance controller. (*Id.* ¶ 35.) Also, the microcomputer’s “second program instructions” enable the relay to act as a repeater by distinguishing messages directed to itself from messages intended for other relays. (*Id.* ¶ 36.) Messages can be relayed between at least two intermediary relays. (*Id.*)

Legal Standard

Because a Rule 12(b)(6) motion is a purely procedural issue, Seventh Circuit law governs this legal standard. *Nalco Company v. Chem-Mod, LLC*, 883 F.3d 1337, 1346 (Fed. Cir. 2018). A motion to dismiss pursuant to Rule 12(b)(6) for failure to state a claim tests the sufficiency of the complaint, not its merits. *Skinner v. Switzer*, 562 U.S. 521, 529, 131 S.Ct. 1289, 179 L.Ed.2d 233 (2011). When considering dismissal of a complaint, the Court accepts all well-pleaded factual allegations as true and draws all reasonable inferences in favor of the plaintiff. *Erickson v. Pardus*, 551 U.S. 89, 94, 127 S.Ct. 2197, 167 L.Ed.2d 1081 (2007) (per curiam). To survive a motion to dismiss, plaintiff must

“state a claim for relief that is plausible on its face.” *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 570, 127 S.Ct. 1955, 167 L.Ed.2d 929 (2007). A complaint is facially plausible when the plaintiff alleges “factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.” *Ashcroft v. Iqbal*, 556 U.S. 662, 678, 129 S.Ct. 1937, 173 L.Ed.2d 868 (2009). When ruling on a motion to dismiss, courts “may consider documents attached to the pleadings so long as the documents are referred to in the complaint and central to the plaintiff’s claims.” *Doe v. Columbia Coll. Chicago*, 933 F.3d 849, 854 (7th Cir. 2019).

Analysis

Introduction to Patent Eligibility

In the realm of patent-eligible subject matter, defined in § 101 as “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof,” the Supreme Court has recognized three implicit exceptions: “laws of nature, physical phenomena, and abstract ideas.” 35 U.S.C. § 101; *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70, 132 S. Ct. 1289, 1293, 182 L. Ed. 2d 321 (2012); *see also Alice Corp. Pty. v. CLS Bank Int’l*, 573 U.S. 208, 217–18, 134 S. Ct. 2347, 2355, 189 L. Ed. 2d 296 (2014). These exceptions encompass products or manifestations of nature which were already in existence and awaiting discovery. *Gottschalk v. Benson*, 409 U.S. 63, 67, 93 S. Ct. 253, 255, 34 L. Ed. 2d 273 (1972). Abstract ideas, for example, include scientific or mathematical principles, intellectual concepts, and mental processes that are fundamental to scientific and technological innovation. *Id.* When an invention embodies one of these exceptions, the so-called “*Alice/Mayo* test” articulates a two-step process to determine whether the claims-at-issue are nonetheless patent-eligible by virtue of claiming an “inventive concept” or application. *Alice*, 573 U.S. at 217–18.

In *Alice/Mayo* step one, the Court must determine whether the claims of the patents-at-issue are directed to a patent-ineligible law of nature, physical phenomenon, or abstract idea. *Enfish, LLC*

v. Microsoft Corp., 822 F.3d 1327, 1335 (Fed. Cir. 2016). If so, in step two, the Court considers whether the elements of the claims, individually or in an “ordered combination,” disclose a patent-eligible inventive concept or application that is “significantly more” than the ineligible concept. *Alice*, 573 U.S. at 217–18. While the contours of “significantly more” continue to be defined, case law has established a floor beneath which non-abstract elements will fail to disclose a patent-eligible inventive concept or application. See *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1262 (Fed. Cir. 2016). Specifically, at a minimum, the elements must do more than add the words “apply it” or “apply it with a computer” to the natural law or abstract idea. *Alice*, 573 U.S. at 223. Nor will appending routine or conventional activity described in high-level language to a natural law or abstract idea amount to an inventive application of the law or idea. *Mayo*, 566 U.S. at 82.

Of particular concern in the analysis of patent-eligible subject matter is preemption, where a patent forecloses future innovation because the tools or building blocks of science and technology are improperly cordoned off from use by other inventors. *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). Often, preemption will signal that the subject matter is patent-ineligible. *Id.* However, there is an opposing concern that too high a bar on recognizing an inventive concept or application will consume all of patent law because at some level every invention embodies or applies a patent-ineligible law or idea. *Mayo*, 566 U.S. at 71.

Alice/Mayo Step One

The Court’s task in *Alice/Mayo* step one is to determine whether the claims-at-issue are directed to an abstract idea. *Alice*, 573 U.S. at 217. The “directed to” inquiry ascertains the focus of the claims by looking at the patent specification, the character of the claims as a whole, and the drafting language. *Enfish*, 822 F.3d at 1335, 1337. First, the patent specification sheds light on the problem facing the inventor which in turn aids in identifying what advances have been made over the prior art. See *id.* at 1337. Next, courts look to whether the claims present a “particular concrete

solution” to a problem, or if they simply embody the “idea of a solution.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1356 (Fed. Cir. 2016). Finally, courts may compare the claims-at-issue to ones found to be directed to an abstract idea. *Enfish*, 822 F.3d at 1334.

Karamelion asserts that the claims of the patents-in-suit are directed to “an improved appliance controller with specific relay functionality for a distributed appliance system” Note, first, that this is redundant. The improvement *is* the addition of relay functionality to the controller. The improvement is not about making an appliance controller do its job of controlling an appliance any better, *e.g.*, faster or with greater precision. Next, Karamelion asserts that the problem that its improved appliance controller addresses is communication over a distance, a problem for which the prior art offers only difficult or expensive solutions. (First Am. Compl., Ex. B, ‘245 Patent col. 1, ll. 43-51.) Karamelion’s invention solves this problem by breaking up the distance with relays, which is exactly the same solution the Pony Express used in the mid-1800’s.²

Nor do the apparatus and method claims-at-issue provide a solution in anything more than functional language implementing generic components with nonspecific computer instructions. Where such is the case, this often indicates that the claim language is directed to an idea rather than to a specific technological advance. *Elec. Power*, 830 F.3d at 1355, 1356. Here, claim 16 describes the actions of the main and satellite transceivers in a list of functional steps such as “signaling ...,” “decoding ...,” “transmitting ...,” and “feeding ...,” but offers no technical details concerning the mechanics of transmission. (First Am. Compl., Ex. A, ‘166 Patent col. 11, ll. 29-30, col. 12, ll. 01-15.) In this respect, claim 16 is similar to the method claim for network communication in *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1334-35 (Fed. Cir. 2017). There, the Federal Circuit concluded the claim was directed to an abstract idea because it invoked generic

² CHESTER WHITNEY WRIGHT, *Economic History of the United States* 288 (William Homer Spencer, ed., 2nd ed., 1949).

components and failed to provide any technical detail regarding the mechanics of transmitting communication. *Id.* at 1337.

Next, the hardware in both of the claims-at-issue (the headend computer, the main radio transceiver or transmitter, the satellite transceivers, the appliance interfaces, and the microcomputers) are generic components employed in their off-the-shelf capacity, so the combination of the components works in an entirely predictable manner. *See In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 615 (Fed. Cir. 2016). The appliance controller of claim 1, for example, uses its satellite radio transceiver to transmit messages through a network of relays according to “program instructions” comprising no more than typical relay functionality: “detecting communications,” “signaling receipt of ... communications,” “directing communications,” and “transmitting ... communications.” (First Am. Compl., Ex. B, ‘245 Patent col. 15, ll. 13-28.) Thus, the claims embody no technological advances and use only functional, result-oriented language to accomplish control of an appliance by relaying communication to it. *See Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1343 (Fed. Cir. 2018).

Karamelion argues that the claims-at-issue are not directed to an abstract idea by reciting patent language and referring to patent diagrams to highlight the tangible components of the invention. The mere fact that an abstract idea is implemented in a concrete or tangible way does not change the underlying, patent-ineligible focus of the claims. *In re TLI*, 823 F.3d at 611.

As such, under *Alice/Mayo* step one, claim 16 of the ‘166 Patent and claim 1 of the ‘245 Patent are directed to the abstract idea of using a network of relays to communicate over a distance.

Alice/Mayo Step Two

In step two of the *Alice/Mayo* framework, courts determine whether the claims present an inventive concept or application that is “significantly more” than the ineligible subject matter. *Mayo*, 566 U.S. at 77. In other words, are there additional, patentable features which do not monopolize

the abstract idea? *Affinity Labs of Texas*, 838 F.3d at 1262. Here, the answer is no. Neither claim presents an inventive concept which is more than the abstract idea.

To explain, *Mayo* established that “significantly more” is more than appending “well-understood, routine, conventional activity” to the ineligible subject matter. *Mayo*, 566 U.S. at 79. Whether a combination of elements is well-understood, routine, and conventional is a factual determination that must be proven by clear and convincing evidence. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018). However, where there are no factual allegations, taken as true, that would prevent resolving the matter of patent eligibility, eligibility may be determined under Rule 12(b)(6). *Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018). As such, the Court takes as true all of Karamelion’s factual allegations “to the extent they are captured in the claims” and proceeds to step two. *Berkheimer*, 881 F.3d at 1370.

First, the claim elements must be examined individually and as “an ordered combination” for an inventive concept or application. *Alice*, 573 U.S. at 225. Here, the elements of claim 1 of the ‘245 Patent combine generic components to create its “improved appliance controller.” Karamelion argues that it is this combination, together with the method described in claim 16, that forms an unconventional solution that the prior art failed to adequately address and which, therefore, is inventive.

The Federal Circuit decision in *ChargePoint* is instructive. In that case, the patents-at-issue addressed the problem of “sparse availability of [electric vehicle or EV] charging stations and the need for more widespread stations.” *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 774 (Fed. Cir. 2019), *cert. denied*, 140 S. Ct. 983, 206 L. Ed. 2d 135 (2020). The claimed innovation created a network of remotely controlled charging stations by adding network communication functionality to them. *Id.* at 774. The allegedly “unconventional” solution was to add a generic transceiver capable of network communication to a charging station and then remotely controlling it via a wide area

network, *i.e.* the Internet. *Id.* at 770, 772, 774–75. The Federal Circuit held that for all the claims, the abstract idea of “communicating over a network for device interaction” was itself the inventive concept. *Id.* at 773.

In this case, the problem concerns communicating with a widespread system of appliance controllers where the controllers are at a distance from some central control point or “headend computer.” The claimed innovation creates a network of remotely controlled appliance controllers by adding relay functionality to them. The allegedly unconventional solution is to add a generic satellite transceiver to an appliance controller and then to remotely control it by relaying communications through the network of relay-enabled appliance controllers. This Court cannot help but see the same problem *ChargePoint* addressed with the same idea of a solution.

The plaintiff in *ChargePoint* argued that the innovation was the enabling of charging stations to use networks and not the network connectivity itself, to which the court pointed out “the specification gives no indication that the patented invention involved how to add network connectivity to these charging stations *in an unconventional way.*” *Id.* at 775 (emphasis added). In similar fashion, Karamelion argues that adding relay functionality to the appliance controllers for wireless network communication is an unconventional solution that forms the inventive concept. The claims-at-issue, however, do not add this functionality to the appliance controllers in an unconventional way beyond simply positioning a generic microcomputer between the generic satellite radio transceiver and the generic appliance interface with instructions to operate the transceiver as a relay. (Ex B. col. 15 ll. 06-24.)

Perhaps the biggest difference between Karamelion’s solution and that of *ChargePoint*, beyond their respective applications, is that in *ChargePoint*, the network (the Internet) was already in place. In Karamelion’s invention, the appliance controllers create their own local area network for communication by their ability to relay messages from one controller to another according to the

intermediary and destination relay addresses specified in each message. (First Am. Compl., Ex. A, ‘166 Patent, col. 11, ll. 28-29, col. 12, ll. 1-14.) Even so, the inventive concept is still the same: “communicating over a network for device interaction.” *ChargePoint*, 920 F.3d at 773. Invoking conventional network technology in a routine way using generic components does not transform the claim into a patent-eligible application. *Elec. Power*, 830 F.3d at 1355. Therefore, while Karamelion’s solution may be a novel application of network communication to this particular problem, as *Alice/Mayo* instructs, no matter how novel or groundbreaking the advance, the abstract idea cannot supply the inventive concept. *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018).

Karamelion also argues that the level of detail in its claim language is the same as that of claims upheld as patentable in six Federal Circuit decisions. That may well be true, but the Court declines to conduct a detailed comparison that Karamelion itself did not present to support its assertion. See *United States v. Barr*, 960 F.3d 906, 916 (7th Cir. 2020) (undeveloped and unsupported arguments are waived). Moreover, when comparing the language of Karamelion’s claims-at-issue to those invalidated in *ChargePoint*, Karamelion uses the same general what-to-do rather than how-to-do type of language.³ For example, an apparatus claim at issue in *ChargePoint* is notably similar to apparatus claim 1 of the ‘245 Patent; both combine generic hardware components employed in their nominal or off-the-shelf capacity, and the combination is no more than the predictable sum of the components. *ChargePoint*, 920 F.3d at 766 (claiming a device comprising a “controller” positioned between a transceiver and a “control device” which is connected to the EV via a “coupler”). Similarly, the elements of a method claim at issue in *ChargePoint* are the same broadly-worded functional steps describing what must be done but not particularly how to do it. *Id.* at 771 (claiming

³ In *Karamelion, LLC v. Guardian Protective Servs., Inc.*, No. 8:19-cv-1558 (M.D. Fla. Oct. 31, 2019), the district court made an oral ruling denying the defendant’s motion to dismiss claims 1 of the ‘166 and ‘245 Patents for invalidity under § 101 after oral argument. Here, after full consideration of the arguments of both parties and the applicability of recent Federal Circuit decisions, this Court comes to a different conclusion concerning the validity of the claims-at-issue.

a method for “receiving a request...,” “determining whether to enable charg[ing],” “validating ... payment ...,” and “transmitting a communication ...”).

Finally, Karamelion’s claims will inhibit innovation by requiring other inventors to license from it the idea of adding network communication to any system of appliance controllers. *See Elec. Power*, 830 F.3d at 1356. The claims-at-issue preempt all wirelessly networked systems of appliance controllers regardless of any particular technological innovations devised to implement them. So broad are its limitations that the claims entangle anyone who seeks to develop such a system no matter how the device interaction is enabled. These claims, if allowed to stand, are mere rent-seeking, and will impede innovation rather than promote it. *Id.*

Accordingly, claim 16 of the ‘166 Patent and claim 1 of the ‘245 Patent are directed to an abstract idea and the claims-at-issue do not present a patent-eligible inventive concept or application.

Conclusion

Based on the foregoing, the Court grants defendant’s Rule 12(b)(6) motion to dismiss with prejudice [17]. Civil case terminated.

IT IS SO ORDERED.

Date: 11/6/2020

Entered: 
SHARON JOHNSON COLEMAN
United States District Judge